

Copy to Bert Scoggett 5/3/10

STATE OF DELAWARE
SINGLE POINT OF CONTACT – SPOC
INTERGOVERNMENTAL REVIEW OF FEDERAL PROGRAMS
Office of Management and Budget
Haslet Building, 3rd Floor, Dover, Delaware 19901
(302) 739-4206

1. STATE APPLICATION IDENTIFIER:

S0-04-22-12

SPOC use ONLY

Month

05

Reviewer

JS

CC's

R

2. Applicant Project Title: DTCC Equipment to Enhance Nursing Education - **ARRA**

3. Applicant Department: Delaware Technical & Community College

4. Applicant Division/APU: Office of the President

5. Applicant Address: P.O. Box 897, Dover, DE 19903

6. Contact Person: Barbara Ridgely

7. Contact Person's Phone Number: (302) 739-4622

8. Signature of Secretary or Agency Head (for state agencies) or Chief Administrator (for all other applicants)

Dr. Orlando J. George, Jr., President

9. Federal Grantor Department: U.S. Department of Health and Human Services
Health Resources and Services Administration

10. Federal Sub-Agency: Bureau of Health Professions
Division of Nursing

11. Federal Contact Person: Aisha Fields, MS

12. Phone Number: (301) 443-3656

13. Address: Atten: HRSA, Bureau of Health Professions, Division of Nursing
5600 Fishers Lane Rockville, MD 20857

14. Federal Program Title:
ARRA, Equipment to Enhance Training for Health Professionals, Nursing Workforce Diversity

15. FEDERAL CATALOG NO:
(CFDA)
93 411
N

16. Project Description:

Delaware Technical & Community College is requesting ARRA funding to purchase capital, educational equipment for the Nursing Departments, Collegewide. This equipment will be used to help address the state's critical nursing shortage by giving students better access to skill/concept demonstrations, hands on practice, and information review, improving student retention through graduation.
Total requested federal funding: \$212,313

17. Will funds be utilized for any technology initiatives? ☐ Yes ☒ No If so, Business Case Number and brief project summary:

18. Measurable Objectives:

a. What were last year's objectives?

NA

b. Were these objectives met? (If not, please explain why)

NA

c. What are this year's objectives?

Equipment will be ordered within 90 days of award and operational within six months of receiving funding.

4/29/10

(If more space is needed, please attach a separate sheet of paper)

19. Grant Period:

From: **9/1/10**

To: **8/31/11**

20. How many years has this project been funded:

This is a new proposal.

21. If the project was funded last year, how much federal money was awarded?

NA

22. Source of funding for this application:

Dollars

a. Federal grant

\$212,313

b. Other federal funds
(Specify source of funding)

c. Required state contribution
(Specify source of funding)

d. Discretionary state contribution
(Specify source of funding)

e. Required local contribution
(Specify source of funding)

f. Other non- federal funds
(Specify source of funding)

TOTAL

\$212,313

23. Budget by cost category and source:

Federal
Funds

State
Funds

Other
Funds

Total
Funds

Salaries & Fringe Benefits

Personal or Contractual Services

Travel

Supplies & Materials

Capital Expenditures

\$212,313

\$212,313

Audit Fees

Indirect Costs

Other

TOTAL

\$212,313

\$212,313

24. How many positions are required for the project? (Exclude casual/seasonal employees)

Breakdown of position(s)

Authorized in
State Budget

New Positions
Required

Total

Paid for out of federal funds

N/A

N/A

N/A

Paid for out of General Funds

N/A

N/A

N/A

Paid for out of state special funds

N/A

N/A

N/A

Paid for out of bond/local/other funds

N/A

N/A

N/A

TOTAL	N/A	N/A	N/A
<p>25. PLEASE NOTE: On a separate piece of paper, please give position number, grade, yearly salary and percent of funding (federal, state, local, other) and the full-time equivalent for all positions required. Please identify the new positions by placing an asterisk before the position title. If this grant funds positions within other departments, divisions and/or offices, please list them. If a position has been reallocated to or from another grant please indicate the grant source.</p>			

Equipment list 2010 HRSA

<u>Campus</u>	<u>Item</u>	<u>cost</u>	<u>quantity</u>	<u>total cost</u>	<u>campus total</u>
Stanton	Patient simulator SimBaby	\$ 49,250	1	\$ 49,250	
	ALS Simulator with unit box	\$ 14,100	2	\$ 28,200	
	Ventriator/Impact Univent	\$ 5,700	1	\$ 5,700	
Owens					\$ 83,150
	Simulating Medication Dispensing System	\$ 18,995	1	\$ 18,995	
	Simulation Recording Debriefing System	\$ 10,610	1	\$ 10,610	
	WelchAllyn Atlas Monitor	\$ 5,811	1	\$ 5,811	
Terry					\$ 35,416
	Patient simulator SimMan w/faculty instructions	\$ 93,747	1	\$ 93,747	
				\$ 212,313	\$ 93,747

Project Summary / Abstract

Project title: DTCC Equipment to Enhance Nursing Education

Applicant organization: Delaware Technical & Community College

Program applying under: CFDA 93.411, HRSA 10-167, EETHP - NWD

Project Director: Dr. Kathy Janvier, Chair, Nursing Department, Stanton Campus
400 Stanton-Christiana Road
Newark, DE 19713-2111

Phone: 302/454-3948 **Fax:** 302/368-6620 **Email:** janvier@dtcc.edu

Organizational website: www.dtcc.edu

Congressional district(s) served: State of Delaware

Type of equipment to be purchased: Educational equipment for nursing programs

Projected date for equipment to be purchased: 9/1/2010 – 8/31/2011

Number of students to be trained using the equipment during project period: 952 enrolled students will be trained and 2,400 pre-entry students will benefit

Other HRSA funding for equipment purchases: No concurrent requests are submitted

Requested amount \$212,313

Requested Equipment: Patient simulator SimBaby, \$49,250; ALS Simulator with unit box, \$14,100; Ventrilator/Impact Univent (2), \$5,700; Simulating Medication Dispensing System \$18,995; Simulation Recording Debriefing System \$10,610; WelchAllyn Atlas Monitor \$5,811; Patient simulator SimMan w/faculty instructions \$93,747

The state of Delaware is experiencing a severe shortage of nurses (sixth highest in US) and it is projected to be a negative 51% by 2020. This means that by 2020 the people of Delaware will need twice as many nurses as are available in the workforce. Equipment purchased through this grant will help disadvantaged students to learn, successfully complete nursing classes, graduate from the nursing program, prepare for NCLEX, and ultimately work as an RN.

The *DTCC Equipment to Enhance Nursing Education* proposal will assist HRSA to achieve the American Recovery and Reinvestment Act goal, to address health professions workforce shortage, specifically registered nurses. Delaware Technical & Community College requests financial support through EETHP-NWD Program to purchase educational equipment for its three accredited nursing programs. This equipment will be used to help address the state's critical nursing shortage by improving pre-entry and retention program components, and train nursing students including disadvantaged students who might otherwise have to delay their entry into (pre-entry), or drop out of, training programs. It will also student access to skill/concept demonstrations, hands on practice, and information review.

With funding under this ARRA opportunity, Delaware Tech will purchase equipment that will be used to help increase the diversity of students entering health professions programs (**pre-entry**), support the training of disadvantaged students (including racial and ethnic minorities underrepresented among registered nurses) (**retention and scholarship**), provide training in primary care disciplines i.e. nursing where shortages exist, and improve training programs by providing better access to equipment.

PROGRAM NARRATIVE – DTCC Equipment to Enhance Nursing Education

A. INTRODUCTION AND CAPABILITY NARRATIVE

Purpose

The *DTCC Equipment to Enhance Nursing Education* proposal will assist HRSA to achieve the American Recovery and Reinvestment Act goal, to address health professions workforce shortage, specifically registered nurses. Delaware Technical & Community College requests financial support through EETHP-NWD Program to purchase educational equipment for its three accredited nursing programs. This equipment will be used to help address the state's critical nursing shortage by improving pre-entry and retention program components, and train nursing students including disadvantaged students who might otherwise have to delay their entry into (pre-entry), or drop out of, training programs. It will also give students access to skill/concept demonstrations, hands on practice, and information review.

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DTCC's nursing curriculum integrates technology and equipment that accelerate learning. Simulation manikins used in the classroom give students hands on learning opportunities that parallel real patient scenarios. This improves student performance in clinical settings. Skills can be practiced until mastered before they are done on a living patient. Digital recordings of skill demonstrations done on sim-manikins are used by faculty to teach and re-teach and by students to learn and review class work.

Pre-entry - Student comments to faculty and exit interviews of students who withdraw from the nursing program indicate that pre-entry students may not have a clear understanding of the work done by nurses. Equipment purchased through this grant will be used by the nursing departments in outreach/recruitment demonstrations to middle and high school students, career day/open house programs, in the practical nursing program, and in early coursework to increase disadvantaged students' competitiveness for entry into and graduation from the DTCC advanced degree nursing program.

Estimated number of student contacts: 5,503 (pre-college and pool students)

Retention – Disadvantaged students enter into the DTCC Nursing programs (44.3% of nursing pool represents racial/ethnic minorities). However, only 24.6 % of students who graduate with an AAS in Nursing represent a minority. Equipment purchased through this grant will help disadvantaged students to learn, successfully complete nursing classes, graduate from the nursing program, prepare for NCLEX, and ultimately work as an RN. **Will train 952 students**

Scholarship – Nursing students at DTCC receive significant federal, state, and private scholarship support. Fall 2009, 804 students enrolled in the RN program received \$138,438 in scholarship support and \$595,224 in federal financial aid, \$733,662 total. This amount is quite

significant given that full time tuition is \$1,236.00 per semester for 12 credits or more. PN and pool students combined (3251 students) received \$59,506 in scholarships and \$3,738,161 in federal financial aid, for a total of \$3,797,667 for pre-entry students.

Capability: The College – Delaware Technical & Community College (DTCC), the First State's only community college, promises access, opportunity, excellence and hope to each student who enters its doors. DTCC offers academic, technical, continuing education, corporate and community training opportunities in more than 100 associate degree, diploma and certificate programs. The College has about 70 connected degree options with senior institutions. Courses are offered in fields ranging from engineering technology, business and computer information systems to nursing, allied health, biotechnology, education, culinary arts, human services and language and culture.

The College was created by the Delaware General Assembly in 1966 and accepted its first class for fall semester 1967. In keeping with its mission, the College is an open admission institution. The College and each campus are fully accredited by the Commission on Higher Education, Middle States Association of Colleges and Schools. Traditional classroom courses are available at four locations throughout the state: The Jack F. Owens Campus is in historic Georgetown, the county seat of Sussex, southernmost of Delaware's three counties. The Charles L. Terry Campus in Dover, the state capital, is near the center of the state and serves Kent County. The two Stanton/Wilmington Campus locations serve New Castle County, where more than half of Delaware's population lives, and the City of Wilmington. DTCC also offers a variety of distance learning opportunities including interactive classroom, online and video courses so students can take just about any class offered at any campus.

Leaders in business, industry, government, education and health serve on College advisory committees, providing guidance to Delaware Tech as it develops and evaluates curricula to ensure its programs are up to date and relevant in the modern workplace.

Credit enrollment in 2008-2009 was 20,484 individuals statewide. Additionally, 22,187 individuals are registered in non-credit courses bringing enrollment to 42,671. The current cohort of students is 62% women and 32% minority. Delawareans represent 96% of the student body and 56% of DTCC students are part-time. The College is respected and trusted at the state and national levels because of its hallmarks of commitment, responsiveness and vision. (<http://www.dtcc.edu/about/>) DTCC has earned its place as an educational leader in the state of Delaware.

The Nursing Department – The Nursing Department mission is to prepare students for state licensure eligibility and to obtain entry level positions with an opportunity for career advancement. Nursing programs are offered at three of the four campus locations: Owens, Terry, and Stanton. Although the programs share the College mission and philosophy, the admission criteria and curriculum structure vary. Each program is separately accredited by the National League for Nursing Accrediting Commission (NLNAC). All three campuses offer the Associate Degree Nursing program and advanced placement for Licensed Practical Nurses to associate degree. Terry will be introducing a Paramedic bridge to associate degree nursing this fall. Owens and Terry campuses offer a diploma LPN program.

The Associate Degree Nursing program curriculum is designed to prepare students for licensure as a beginning practitioner RN within a variety of healthcare settings. This is accomplished through a balance of general education courses, nursing courses, and supervised clinical practice in multiple learning environments. The curriculum plan illustrates a logical, sequential design that reflects the core concepts of the organizing framework. Cultural competency information and skill training is infused throughout the curriculum. The nursing program supports lifelong learning by being an integral part of a career ladder. The Practical Nursing curriculum allows easy transition into the Associate Degree Nursing program. Students who have completed an approved Practical Nursing program elsewhere and are currently licensed may also enter into the Associate Degree program in its final two semesters as an advanced placement associate degree nursing student. The College has articulation agreements with Wilmington University, Delaware State University, Wesley College, and University of Delaware that allow graduates who have successfully passed their NCLEX-RN to pursue a bachelor's/master's degree in nursing. In response to delayed admissions into the clinical portion of the DTCC nursing program, Wilmington University offers related classes toward a bachelor's degree.

B. NEEDS ASSESSMENT

The state of Delaware is experiencing a severe shortage of nurses (sixth highest in US) and it is projected to be a negative 51% by 2020 (HRSA 1). This means that by 2020 the people of Delaware will need twice as many nurses as are available in the workforce. Delaware Healthcare Association, states the overwhelming majority (87%) of nurses in Delaware are White/non-Hispanic. This shortage compounded by a lack of diversity in the RN workforce negatively impacts culturally competent medical services to disadvantaged populations limiting access to care (HP 2010, 1). Delaware Technical & Community College is working to address this shortage of nurses including graduating more racial and ethnic minority students from its RN programs by expanding the program. The Nursing expansion began with the fall 2003 semester. State funds are providing additional positions at the three DTCC campuses that house nursing programs. Today, there are 86 nursing faculty including three department chairs and three retention instructors (one per county). Five nursing counselors round out the RN program staffing. Enrollment has increased from 354 students in the spring of 2003 to 890 students in the fall of 2008. Graduates increased from 195 to 443 in the same period. Equipment and technology are used to enhance/accelerate learning. Additional equipment will give students improved access and learning that is more current with healthcare employers. While labs and dedicated faculty are already in place, financial resources are needed to purchase equipment.

The requested equipment is a program expansion with similar equipment in use. Several issues impact our need for additional equipment. Due to increased enrollment from program expansion students have limited class time that they can practice nursing skills. In addition, when classes are scheduled in nursing labs other students need to use manikins for supplemental instruction, projects, testing etc. to meet their learning needs. Additionally, classroom equipment is not up to date with what is used by affiliated clinical partners and/or future employers. Where basic simulation equipment is already in use expanding the program to include a medication dispensing, recording/debriefing, and monitoring systems will help students learn and provide them a more authentic clinical experience in the safety of the classroom.

Justification for this request and unmet training needs include: Courses that utilize infant/child manikins must repeat the same lab experience multiple times because three appropriate manikins must be shared by eighty students. Courses that incorporate adult manikins have approximately 8 students per manikin. Students have a limited amount of time to use manikins because other students are waiting. Students who need to practice often have to wait hours for this experience. Giving students access to state of the art educational equipment helps them to learn, gives them a more authentic clinical skills lab experience, and builds the student's confidence/skills, which are necessary components to establish competency and critical thinking.

Requested equipment will enhance student learning experience by improving retention through graduation (including racial & ethnic minorities who are at risk of not completing the program). Per the manufacturer and verified by nursing faculty, equipment will impact as follows:

- Students retain more information because they see it and do it
- Expands the clinical experience in a safe, risk-free environment
- Opportunity for critical debriefing
- Simulation equipment provides simulation-based education to challenge and test students' clinical and decision-making skills during realistic patient care scenarios. It includes well-proven software and interactive technologically advanced manikins allowing learners to practice the emergency treatment of patients.
- The equipment allows for student reflection and subsequent learning.
- Enables students to bridge the gap from classroom theory to actual clinical practice.
- It will enhance students' confidence in their abilities to manage patients and clinical situations.
- It will prepare them for the realities of the health care environment.

Student pool who will benefit from equipment purchase:

Student retention, particularly retention of disadvantaged students (including racial and ethnic minorities) is a primary goal for this proposal. **Table 1** shows that disadvantaged students enter into the DTCC Nursing programs (44.3% of nursing pool represents racial/ethnic minorities). However, only 24.6 % of students who graduate with an AAS in Nursing represent a minority. Equipment purchased through this grant will help disadvantaged students to learn, successfully complete nursing classes, graduate from the nursing program, prepare for NCLEX, and ultimately work as an RN.

Delaware Tech is committed to providing an open admission post-secondary education to the citizens of Delaware. It is estimated that one-fourth of Delaware's population has taken courses at DTCC. However, the open-door policy does not mean open-door curriculum. Several technologies, including nursing, have selective admission criteria. Any student can declare "nursing" as their major upon application to the college. This accounts for the large "pool" of nursing students (>3103) who are not yet eligible for admission into the program clinical portion. Additionally, LPN is a pathway to advanced placement in Delaware Tech's RN programs.

Table 1. Delaware Technical & Community College (All Campuses)

DTCC Nursing Programs 2010										
	Fall 2009		Fall 2009 LPN		Fall 2009 RN Program		Class of 2010 Grads/Potential			
	Pre-Nursing		Program				LPN		RN	
African American	966	31.1%	46	31.1%	145	18.0%	36	21.7%	45	15.8%
Hispanic	196	6.3%	4	2.7%	33	4.1%	6	3.6%	11	3.9%
White	1727	55.7%	89	60.1%	583	72.5%	119	71.7%	215	75.4%
Other	214	6.9%	9	6.1%	43	5.3%	5	3.0%	14	4.9%
<i>Total</i>	3103		148		804		166		285	

	Fall 2009		Fall 2009 LPN		Fall 2009 RN Program		Class of 2010 Grads/Potential			
	Pre-Nursing		Program				LPN		RN	
Fully Qualified	1394	44.9%	54	36.5%	531	66.0%	95	57.2%	184	64.6%
Educationally Disadvantaged	1709	55.1%	94	63.5%	273	34.0%	71	42.8%	101	35.4%
<i>Total</i>	3103		148		804		166		285	

Note: 952 Enrolled students will be trained using the requested equipment

Populations who will benefit include:

- Disadvantaged nursing students who are at risk of not graduating
- Middle and High School students (including underrepresented racial/ethnic minorities) who are contacted through nursing program outreach/recruitment
- Pre-nursing adult students who attend a nursing program open house
- Nursing students just beginning their professional nursing career
- Students who are advanced placement LPNs and need to improve skills
- Nursing students who need practice in critical thinking
- Nursing students who need psychomotor practice
- Nursing students who are kinesthetic/tactile learners
- Nursing faculty who work with all of the populations listed above
- The people of Delaware because more nurses will be available to help them

This equipment will help to address Delaware's critical nursing shortage by assisting the students enrolled in the program that graduates more Registered Nurses than all other RN programs in the state combined (**Class of 2009 - DTCC 273 RN graduates, all other RN programs 225**). In support of retention efforts it will give students more hands on time in the nursing lab. It will help remediation-students work independently to improve their clinical decision-making skills. Nursing students would have more individualized interaction with manikins and medication dispensing equipment. Nursing students would be more likely to succeed in their classes and clinical rotations, learn using equipment that is used by area employers, and work as nurses in Delaware (more than 90% of these graduates secure nursing positions in the state).

The requested equipment will also help us recruit more middle and high-school students (including underrepresented racial and ethnic minorities) because they see students they relate to demonstrating actual nursing skills in a realistic manner.

C. WORK PLAN

1. Decision making process

The simulation equipment was chosen after interviewing nursing faculty to determine what would help students with their ability to meet clinical objectives thereby being successful in the course and ultimately graduating. The SimMan equipment was chosen because;

- a. It is consistent with equipment on campus
- b. Prior experience with manufacturer is positive
- c. It has proven to have good support and service
- d. It is a leading supplier
- e. The equipment is easier for faculty and students to use than other products on the market.

The Medication Dispensing System was chosen because the students will have the opportunity during their medication lab on campus to gain hands-on experience with the type of systems that are found in the majority of our clinical sites. It will give them a chance to practice with the equipment prior to being in the actual clinical site.

2. The process of the purchase (purchase of equipment) in measurable terms by months;

During the first thirty-days, the request for purchase with accompanied documentation would be forwarded to the Campus Business Manager from the requesting department. The Campus Business Manager forwards the package to those requesting bid for review and determination of a successful bidder. A Quotation Summary would be documented to support the purchase of the equipment, if a sole source provider is involved. The Vice President for Finance would ensure that all documentation has been received. When bidding is involved, the Office of the President develops a summary of all bidders and bid amounts, and ensures that all required documents have been received. All bids must be awarded by the College President or Vice President for Finance within thirty days (30) of being opened. Awards are made to the lowest responsive and responsible bidder.

3. Activities to carry out the purchase, including research and bidding process;

Generally, purchases of over \$10,000 require formal solicitation of bids. However, in the case of only one provider, the solicitation of bids is not necessary. Data collected would document that the company used to supply the SimBaby, SimMan and ALS Simulator is a sole source provider. Therefore, the purchase of the SimBaby, SimMan and ALS Simulator is a sole source purchase, and as such, would be authorized by the agency head and supported by data showing only one available source. In the case of the ventilator/impact univent, the purchase is less than \$10,000, and competitive prices would not be required.

4. Specific person(s) responsible for the activities;

At the campus level, the department chair is responsible for requesting the equipment through their supervisor, in this case, the Dean of Instruction. The Business Manager receives the request from the Dean of Instruction designee, and is responsible for overseeing the original bid package(s). The Office of the President staff develops a summary of all bidders/bid

amounts and the College President or Vice President of Finance awards the bid amount.

5. Timeframe for integration of equipment into training activities; and integration of equipment into training activities

The integration of the equipment into training activities would first involve set up of the equipment once it is received, training of lab personnel, and subsequent training of faculty who will incorporate the equipment into instruction. It is estimated that the time involved will be six weeks.

6. No alterations or renovations are required.

7. Strategy for maintaining long term operations of the equipment.

A maintenance agreement will be signed with the equipment company to ensure repair and replacement of parts to keep the equipment functioning smoothly over time. The college is committed to maintain the equipment through maintenance contracts.

Detailed Work Plan			
TASK ID NO.	MILESTONES	PLANNED DATE*	RESPONSIBLE PERSON
1.0	Project Planning		
1.2	Interview nursing lab faculty regarding equipment needs	Pre grant submission	Nursing Chairs**
1.2	Interview nursing faculty regarding curriculum and the most effective teaching tools	Pre grant submission	Nursing Chairs
1.3	Survey current equipment and observe the Nursing labs to see utilization and learning effectiveness	Pre grant submission	Nursing Chairs
1.4	Review equipment needs and prioritize based on learning needs of disadvantaged students who need more practice and hands on learning	Pre grant submission	Principal Investigator-Kathy Janvier
1.5	Research models and costs	Pre grant submission	Nursing Chairs
1.6	Determine best equipment based on compatibility, quality, ease of use, support and service	Pre grant submission	Nursing Chairs
2.0	Procurement of Equipment		
2.1	Request for approval to purchase equipment to the campus business managers	30 days	Nursing Chairs with approval of the Dean of Instructions
2.2	Bids solicited if appropriate	40 days	Campus Business Managers
2.3	Review of supporting documentation and approval of purchase	60 days	Vice President for Finance
2.4	Contract awarded and purchase order sent	80 days	Office of VP for Finance
2.5	Equipment delivered to site	140 days	Company
3.0	Installation and Integration		
3.1	Site preparation complete	140 days	No alterations or renovations required
3.2	System installation complete	150 days	Company

3.3	Training of nursing lab personnel	180 days	Company
3.4	Training of nursing faculty	200 days	Lab personnel and Company
4.0	Implementation of activities using new equipment		
4.1	Incorporate the equipment into instruction	230 days	Nursing faculty
4.2	Program realistic scenarios and test them	260 days	Nursing faculty
4.3			
5.0	Long term operation of the equipment		
5.1	Design and save own patient scenarios	300 days	Nursing faculty
5.2	Continue equipment maintenance contract (college funds)	730 days	Campus Business Managers

* Planned Date = Number of days after grant is awarded and accepted

** Kathy Janvier (PI), Jo Ann Baker, Tamala Paxton

D. ORGANIZATIONAL INFORMATION

Organizational commitment to the education of disadvantaged and diverse people

The College is committed to the education of disadvantaged and diverse populations and providing a diverse educated work force for the State of Delaware as described in our mission statement:

DELAWARE TECHNICAL & COMMUNITY COLLEGE MISSION STATEMENT

Delaware Technical & Community College is a statewide multi-campus community college committed to providing open admission, post-secondary education at the associate degree level. The College offers comprehensive educational opportunities that support economic development and are relevant and responsive to the needs of the community including career, general, developmental, and transfer education; workforce training; professional development; and lifelong learning. The College believes in the practical value of higher education as a means of economic and personal advancement. **The College respects its students as individuals and as members of diverse groups and is committed to fostering student success.**

(Effective date: July 1, 2009)

Nursing Program Mission and Governance

The missions of the College and of the nursing program support and reinforce each other. All faculty support the mission of both the College and the nursing program by participating in the governance and structure of both. Students participate in campus activities and nursing department committees. The nursing department chairpersons have the same responsibilities and privileges as other department chairpersons. All policies of the nursing department support those of the College and include additional policies that are needed to meet the clinical admission, health and licensure requirements. The administrative leadership of the College is committed to the success of the nursing program.

DTCC Nurses

The majority of registered nurses graduating each year in Delaware received their education at Delaware Technical & Community College (DTCC). The College offers a nursing program in

each of the state's three counties. For the clinical phase of the RN program, these three nursing programs have agreements with hospitals and other health care organizations in the corresponding area of Delaware and nearby states. DTCC's nursing programs are working in unison to address the critical nursing shortage in the State of Delaware as well as the serious shortage of RNs from disadvantaged and minority backgrounds. DTCC nursing programs have graduated an estimated 4,645 LPNs and 5,047 RNs since the first program began 39 years ago. When students succeed in DTCC's nursing program they are well prepared to succeed as registered nurses. The Collegewide NCLEX-RN licensure first time pass rate for the 2006-2007 academic year is 84%. DTCC nursing graduates are helping to address the state's critical nursing shortage because more than 90% of these graduates secure nursing positions in the state.

BIBLIOGRAPHY

(HRSA 1) Health Resources and Services Administration, (July 2002) Projected Supply, Demand, and Shortages of Registered Nurses: 2000-2020

(HP 2010, 1) Healthy People 2010: Understanding and Improving Health, page 20

Delaware Healthcare Association (DHA) *The Status of Nursing in the State of Delaware: A Second Look* (2006), Paula C. Smallwood, Shari B. Thomassen, Cheryl D. Watson

Delaware Healthcare Association (DHA) report on the "*Delaware Acute Care Hospitals and Health Systems Workforce Needs 2003 – 2010*"

Delaware Healthcare Association (DHA) report on the "*Delaware Acute Care Hospitals and Health Systems Workforce Needs 2008 – 2014*"

BUDGET JUSTIFICATION – DTCC Equipment to Enhance Nursing Education

NON-FEDERAL EXPENDITURES	
FY 2009 Actual Nursing Workforce Diversity Program funds, including in-kind, designed for activities proposed in this application. If proposed activities are new or are not currently funded by the institution, enter \$0. Amount: _____	
FY 2010 estimated Nursing Workforce Diversity Program funds, including in-kind, for proposed grant activities. Amount: <u>\$212,313</u>	

The principal purpose of the requested capital equipment is to enhance the training of 952 nurses. The equipment will be used by nursing students and faculty. DTCC will retain the equipment in the US and use it in accordance with the terms of the grant for the useful life of the equipment. The equipment purchases will comply with the procurement requirements for Federal grants and DTCC procurement policies, including adequate competition and following proper bid procedures as described in the proposal work plan. The cost of each equipment unit exceeds \$5000.

Campus	Requested Equipment	Status Report of Current Equipment
Stanton	Patient simulator SimBaby, \$49,250 ALS Simulator with unit box, \$14,100 Ventilator/Impact Univent (2), \$5,700	(1) good 3 yr. old Nursing Anne used daily, (1) good 2 yr. old Nursing Baby used several times/week, (1) fair 4 yr. old SimMan used daily, (1) excellent SimMan3G used several days/week, (1) excellent 1 yr. old SimNewB used several times/week
Owens	Simulating Medication Dispensing System \$18,995 Simulation Recording Debriefing System \$10,610 WelchAllyn Atlas Monitor \$5,811	(1) good 3 yr old Vita Sim pediatric manikin used daily, (2) good 2 yr. old Vita Sim adult manikins used daily, (1) good 3 yr. old Vita Sim baby manikin used daily, (1) excellent 1 yr. old high fidelity SimMan used daily, (1) excellent 1 yr. old high fidelity newborn used several days/week
Terry	Patient simulator SimMan w/faculty instructions \$93,747	(1) excellent 4 yr. old SimMan used daily, (1) good 8 yr. old VitaSim used daily, (1) 4 yr. old fair Noelle used several days/week, (2) adolescent mannequins, (3) adult mannequins and (3) new born mannequins, 4-10 yrs. old in good condition, used daily, (1) 2 yr old excellent SimBaby used several days/week

Budget Narrative HRSA		
<u>Campus</u>	<u>Equipment</u>	<u>Cost</u>
Stanton	Patient simulator SimBaby	\$49,250
	ALS Simulator with unit box	\$14,100
	Ventilator/Impact Univent (2)	\$ 5,700
Owens	Simulating Medication Dispensing System	\$18,995
	Simulation Recording Debriefing System	\$10,610
	WelchAllyn Atlas Monitor	\$ 5,811
Terry	Patient simulator SimMan w/faculty instructions	\$93,747

All equipment will be used in incorporated simulation experiences in nursing clinical courses and will support training of nurses by:

helping students retain more information because they see it and do it and it expands the clinical experience in a safe, risk-free environment. The equipment allows for student reflection and subsequent learning. It will enhance students' confidence in their abilities to manage patients and clinical situations and it will prepare them for the realities of the health care environment.

same as above

same as above

providing a simulation of a computerized medication administration system similar to the acute care hospitals with which we affiliate for clinical experience. Students will benefit because they will have hands on training before they are expected to use it in the clinical setting.

more formally evaluating these experiences: for our second level students, we currently incorporate a simulation experience in each clinical nursing course to ascertain that key clinical nursing experiences are provided to all students. By being able to record them, this process can be enhanced during our debriefing sessions. Students will have the opportunity to objectively view their actions and develop the important skills of self-assessment and accountability. This system integrates well with our current use of our high fidelity SimMan and other simulation manikins.

having a monitor to enhance the reality of the simulation experience further and require the students to critically think about what they are seeing on the monitor and take appropriate actions.

helping students retain more information because they see it and do it and it expands the clinical experience in a safe, risk-free environment. The equipment allows for student reflection and subsequent learning. It will enhance students' confidence in their abilities to manage patients and clinical situations and it will prepare them for the realities of the health care environment.